AMENDMENTS TO THE CLAIMS:

Please cancel claims 1 and 2.

Please amend claim 3 as follows.

Listing of Claims:

1-2 Cancelled

3. (Currently Amended) A data bus arrangement for connecting a plurality of nodes to one another, said arrangement comprising:

a logic decision gate having a plurality of inputs for receiving a corresponding plurality of first electrical signals routed from said plurality of nodes wherein an output of the logical decision gate is connected in parallel to provide second electrical output signals routed to each of said plurality of nodes;

~~at least one~~ a plurality of opto-electrical ~~transducer~~ transducers, each of said ~~at least one~~ plurality of opto-electrical ~~transducer connected~~ transducers connected between one of said nodes and one of said inputs of said logic decision gate wherein the output of said logic decision gate is fed to an electrical input of said each said opto-electrical ~~transducer~~ transducers;

a signal conditioning circuit arranged between said logical decision gate and the inputs of said nodes in order to provide a pulse shaping function for the output signal of said logical decision gate.

4. (Original) The data bus arrangement according to claim 3, wherein said signal conditioning circuit modifies the output signal of the decision gate in order to compensate for distortion generated by said opto-electric transducers.

5. (Original) A method for connecting a plurality of nodes to one another through a data bus configuration, said method comprising the steps of:

routing each of a plurality of outputs from said plurality of nodes to an input of a plurality of inputs of a logic decision gate wherein at least one of said outputted routed signals is fed through an opto-electric transducer to provide an electric signal to at least one input of said logic decision gate;

outputting a signal said logic decision gates and routing said output signal to an input of each of said plurality of nodes;

performing signal conditioning on said output signal of said logic decision gate in order to shape the pulse of said output signal in order to compensate for distortion in each of said opto-electric transducers when converting between optical and electrical signal.

6. (Original) The method according claim 3, wherein the signal conditioning adapts the pulse shape of the output signal of the decision gate to the pulse shape of input signals to said transducers.